2. Cases in which the spleen is distinctly and markedly affected before the liver and to a much greater degree. In these cases the hepatic changes are secondary and dependent on the splenomegaly. He would call these cases metasplenomegalic hypertrophic biliary cirrhosis.

3. Cases in which the enlarged liver precedes and determines the splenomegaly—"presplenomegalic hypertrophic cirrhosis."

These French authors, however, have confounded the various types of disease which we speak of as hæmochromatosis (v. Recklinghausen), Hanot's disease, and diabète bronzé with some cases of splenic anæmia, and cirrhosis of the liver combined with splenomegaly (Banti's disease). I do not think any of their reported cases are like mine.

Nothing is gained by a classification such as M. Chauffard suggests, as it neither indicates the character, cause, or pathology of any of the diseases of the groups.

I can furnish no further explanation of this affection, and all that can be said about this special class of cases is that they represent probably a family disease whose essential characteristic is a progressive splenomegaly. When the physiology and pathology of the spleen become known it may be possible to refer this class of cases to its proper place in medical nosology.

ENTEROPTOSIS.[1]

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The ptoses of the different abdominal viscera are so closely associated, forming, as they do, parts of one great disease picture, that it is unscientific and unsatisfactory to select for discussion one dislocation, such as gastroptosis or nephroptosis, and thrust upon it, as is sometimes done, the dignity of a special disease. It is usually but one manifestation of enteroptosis. Almost never do we find gastroptosis without a dislocation of one or both kidneys, the colon, and the small intestines. Often there is also dislocation of the uterus, less frequently of the liver and the spleen. It is true that the symptoms and anatomical signs on the part of the stomach may predominate in one case, while in another those of the kidneys are the more striking. It is also true that though these organs may be greatly dislocated, the patient may complain of no symptoms that would direct special attention to them.

My experience with this condition during the past few years has convinced me that it is a remarkably common disease, that it is very seldom recognized or examined for by the profession at large, and that a dissemination of knowledge of the disease would be of great worth to the profession and of untold value to suffering womanhood.

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[1] Read before the Detroit Medical Society, January 23, 1901.

There is no disease of more importance to the general practitioner than enteroptosis, since it is endemic the world over, and he is usually first to be consulted by such patients. A familiarity with its symptom complex and a knowledge of the correct methods of diagnosis will relieve him of much worry and vexation of spirit by explaining many an obscure problem in practice.

The patients who are an easy prey to the allurements of patent medicines and quacks are often enteroptotics. They are well described in a patent medicine advertisement as flotsam and jetsam, driftwood —the patients who drift from one physician's office to another; who go the rounds of hospitals and finally give up in despair, reconciled to the belief that treatment of their condition is useless. This class of cases is the bane of the physician's life—the atonic, enfeebled, ill-nourished patients, so poorly equipped with vital force that every physiological function from digestion to thought is seriously impaired. The patient is literally and figuratively run down, as much so as a clock when its mechanism no longer furnishes the impetus to go. These are the cases which every day are being diagnosed as neurasthenia, spinal anæmia, nervous exhaustion, nervous dyspepsia, and change of life.

In this article I shall confine myself rather closely to a statement and discussion of the facts gleaned from an analysis of eighty cases of enteroptosis taken from the records of the medical clinic. I shall avoid citations from numerous authors and shall give but a brief history of the disease.

HISTORY. In 1853 Virchow called attention to the displacements of the intestines which arise through circumscribed peritonitis and obstruction of feces. While working upon diphtheritic dysentery he was struck with the frequency of the dislocation of the abdominal viscera. Indeed, his post-mortem experience led him to make the following statement: "In almost all adults partial states of dislocation of the viscera, and especially of the intestines, occur so frequently that more people have this displacement than a normal location of the intestines."

The intimate relation existing between a large group of symptoms and dislocations of the abdominal viscera entirely independent of inflammatory conditions in the abdominal cavity was first brought prominently before the medical profession by Glénard, of Lyons, France, in 1885. Although other clinicians—Stiller, for instance—claim to have been familiar with these cases long before the publication of Glénard's article, he is given credit for having given to enteroptosis the dignity of a distinct disease. Thus we may distinguish the enteroptosis of the clinician and the enteroptosis of the pathologist. Glénard devoted considerable attention to the *modus operandi* of the development of enteroptosis, to the explanation of symptoms as secondary to the anatomical conditions and to treatment. Ewald and Boas proved that the "cord colique tranverse" of Glénard was simply the normal pancreas, which is sometimes easily felt in these cases. Einhorn and Hemmeter have called attention to the frequency of enteroptosis in patients complaining of dyspeptic symptoms.

Meinert examined a large number of chlorotic girls and concluded that enteroptosis was a prime cause of chlorosis.

Stiller in particular has called attention to congenital enteroptosis and has emphasized the nervous element in this condition. In important contributions he has called the attention of the profession to a new sign, which he terms the costal stigma, or floating tenth rib. All patients possessing this sign are considered neurasthenic. He believes that the degree of movability of this rib is a fair index of the degree of neurasthenia. He believes enteroptosis and nervous dyspepsia to be identical and uses the costal stigma as an easy means of recognizing both. He contends that Reichman's disease is closely related to enteroptosis, accompanies its highest degrees, and depends, as it does, upon a congenital predisposition.

One soon learns to recognize an enteroptotic at a glance. She has a slender frame, is poorly nourished, pale, tired, has a neurasthenic appearance, drags herself about from morning until night, and is entirely lacking in vivacity and energy. Dunster's jocular definition of woman as "a thing which is constipated and has a pain in its side" applies to enteroptotics.

METHOD OF EXAMINATION. Chest and abdomen are stripped and a careful inspection made, the patient assuming both horizontal and upright positions. There is usually a depression in the epigastrium and a fulness below the navel, especially in the upright position.

In nearly all these cases palpation is very easy on account of the relaxed condition of the abdominal walls. Occasionally it may be necessary to put the patient in a hot bath at 110° F. to make palpation easier. Feel for the tenth ribs to determine whether the costal stigma is present. Palpate the kidneys according to well-known methods laid down in text-books. Examination of the stomach comes next in my routine. I have found that percussion and auscultatory percussion are entirely unreliable for locating the greater curvature in enteroptotics. If the stomach is in its normal position they are fairly satisfactory, especially the latter method. Frequently, using auscultatory percussion, I have noted a change in the tympanitic note just above the navel, suggesting that this was the location of the greater curvature. Inflation a moment later demonstrated that this was the lesser curvature in a dislocated stomach. The demonstration of succussion sounds in the region of the navel is very suggestive of a dislocated, dilated, or atonic stomach. The sounds, however, may come from the intestines. Inflation of the stomach by one of the several methods is the most satisfactory way of demonstrating its size and position. Among the methods in vogue is the tartaric-acid and bicarbonate-of-soda method, the patient drinking half a glass of water containing 6 grammes of acid and following immediately with a similar amount containing 7 grammes of soda. Carbonic acid is generated and the stomach is distended.

Another method is inflation through a stomach-tube by means of a Davidson syringe, Politzer air-bag, atomizer bulb, or bicycle pump. Some physicians prefer attaching a French safe or rubber balloon to the stomach-tube, by this means preventing the escape of air either by way of the duodenum or œsophagus. The advantage in this method is that the amount of air introduced into the stomach can be easily controlled. The disadvantage is that the patient, unaccustomed to the use of the stomach-tube, complains of pain before the stomach is fully distended, and in many cases it is necessary to let the air out before determining the position and size.

Spivak, of Denver, recommends auto-insufflation by the patient. A stomach-tube perforated just within the portion covered by the lips is introduced, the distal portion being compressed, and the patient is told to blow. Occasionally the physician applies his own lips to the tube and blows.

My experience with the acid and soda method has been quite extensive and very satisfactory. It will be found much more useful in private practice than the others, since it is much easier to persuade a patient to swallow a couple of doses of medicine than a stomach-tube. Frequently one wishes to distend the stomach when it is inconvenient to give a test-breakfast.

The auto-insufflation method I have never used. From my experience with neurasthenic women I do not believe they would prove successful auto-inflators. Some theoretical objections are offered to the acid and soda method. In some cases of marked dilatation of the stomach it is true that the usual dose is not large enough. In one such case I found it necessary to double the dose in order to obtain good results. Inflation through the stomach-tube is very useful in cases of dilatation. The patient seldom vomits unless the stomach is distended immediately after meals. Some distress occurs, but this is relieved immediately by belching, the patient sticking her finger down her throat if necessary. In the several hundred cases which I have distended by this method neither hemorrhage nor other unfortunate result has followed, and among the cases have been a number with cancer of the stomach. Transillumination can be used, but it is not as satisfactory as distention.

It is well to palpate the liver and spleen in both the upright and horizontal positions. These organs may appear dislocated only in the upright position. The pancreas is often felt by the educated hand from one to two inches above the navel. Such an examination consumes a very few minutes.

The statistics which follow are the results of an analysis of eighty cases of enteroptosis taken from the records of the medical clinic. With but a very few exceptions I have examined these cases myself and thus speak from a personal experience rather than from the records of others:

	Total patients.	Total men.	Total women above 16.	Enteroptosis in men.	Enteroptosis in women.
Last three months of 1892	68	48	20	0	0
Entire year of . . . 1893	207	157	50	1	0
" " . 1894	258	154	84	0	0
" " 1895	238	180	58	1	2
" " 1896	189	144	45	3	0
" " 1897	252	179	73	6	0
" " 1898	288	198	90	12	1
" " 1899	362	259	103	35	4
First four months of 1900	142	96	46	11	4
	2004	1415	569	69	11

From October, 1892, to the end of December, 1896, only seven cases are recorded. Since the latter part of 1897 I have paid more attention to the demonstration of this condition, especially during the past two years, with the result that the number of cases has increased remarkably. Thirteen cases were recorded during 1898, 39 during 1899, and 15 during the first four months of 1900. It is evident that accurate statistics can be obtained only by a careful routine examination of all cases, as there is a large number of the so-called cases of compensatory enteroptosis—patients with the anatomical conditions, but minus the symptoms. Realizing that enteroptosis was much less common in the male and more difficult to recognize, on account of the rigid abdomen, I have distended the stomachs only in those whose symptoms pointed directly to that organ. If my examinations had been more frequent it is quite probable that the number of cases observed in men would have been much larger.

In this series of 80 cases 69 were women and 11 men. In 24 cases both kidneys were dislocated, the right usually showing greater dislocation than the left. As a rule, they were freely movable, it being possible to grasp the entire organ by the palpating hands. In 33 cases the right kidney alone was dislocated; in some only the lower half could be felt on deep breathing. In 4 cases the left kidney alone was dislocated. In 7 cases no notes concerning dislocation were found.

Only lately have I been paying special attention to Stiller's phenomenon—the costal stigma or floating tenth rib. In 8 cases the tenth ribs were distinctly floating; in 7 cases they had membranous attachments; in 65 cases there were no notes, as these patients were examined before special attention was called to this sign.

Position of the Stomach. In 69 of the 80 cases the stomach had fallen from its normal position. In 28 there was a high degree of dislocation, the entire organ lying below the navel. In 41 the prolapse was of moderate degree, the greater curvature being from two to three inches below the navel, the lesser from one to two inches above. All save 12 of these cases were distended with acid and soda. In the 12 not distended succussion sounds were present below the navel. In 3 of the 80 cases the stomach was not dislocated; in 8 there were no notes on this point. In a few cases there was both dislocation and dilatation. In several cases the colon was inflated and was found to have fallen toward the middle line and below the navel.

Analysis of the Stomach Contents. Thirty-six out of the 48 cases analyzed had a total acidity of 50 or below, 2 between 50 and 60, 4 between 60 and 70, 3 between 70 and 80, and 3 between 80 and 90. There were no notes on 32 of the 80 cases. These figures are based upon our old method of determining total acidity, which differs from the method used during the past year, in that formerly—using phenolphthalein as an indicator—the reaction was considered complete when addition of the decinormal NaOH solution produced the faintest pink. At present the reaction is not considered complete until a pink is obtained which does not deepen on the addition of NaOH. This means an additional two or three drops of the decinormal solution.

Using the method in vogue during the past year, a complete stomach analysis has been made in 16 of our cases. Of these 9 had a total acidity of about 50 or below, 7 above 50.

Blood. Examination was made in 23 cases. Of these 9 had a chlorotic condition; 13 were more or less anæmic, but not chlorotic; 1 was normal; 57 had no blood notes. In 13 of the 23 hæmoglobin was 70 or above; in 10 it was below 70.

Confinements. Thirty-five out of 56 women bore children, varying in number from one to eight; 20 never bore children; 1 had an abortion. In 13 there were no notes.

Age. In the second decade, 1; in the third, 32; in the fourth, 19;

in the fifth, 20; in the sixth, 7; in the seventh, 1. The oldest was sixty-seven, the youngest sixteen.

The symptomatology of these cases was extremely varied. In a few there were no symptoms other than a loss of weight, strength, and energy; in their words, simply "run down." In a much larger class the nervous symptoms predominated. Some of these cases were depressed, even melancholy; others very nervous, excitable, and irritable, showing various hysterical phenomena. They complained frequently of palpitation of the heart and forcible pulsation in the abdominal aorta. (In several such cases with which I am familiar a diagnosis of aneurism of the abdominal aorta was made.) Some of these patients are nervous wrecks. They can scarcely endure the sight of their own children. They are unfitted for ordinary social intercourse and domestic responsibilities.

In a third group of cases, in addition to the general symptoms of neurasthenia, there are striking symptoms on the part of the stomach or kidneys. There may be poor appetite, coated tongue, nausea, and vomiting, feeling of fulness and distress after eating, borborygmi; in some periodical attacks of gastralgia, even suggesting gallstone colic or Dietl's crises. In nearly all chronic constipation and sick headache are constant symptoms.

Illustrative Cases.

CASE I.—Mrs. P., aged twenty-six years, housewife; one child. No symptoms on the part of the stomach, no nervous symptoms. She came to the hospital because of amenorrhœa. Stomach entirely below the navel; both kidneys easily felt.

CASE II.—Mrs. C., aged twenty-eight years, housewife; complains of general weakness, loss of weight, dizziness, chilly sensations, aching and soreness of the flesh, and distress in the region of the stomach. Had measles, diphtheria, and typhoid fever when a child; was married at eighteen years; has had three children and one abortion. Present trouble began ten years ago with spells of nausea and chilliness, occurring two and three times a week and gradually increasing in frequency until they occurred several times daily. Appetite and digestion were good; bowels constipated; had palpitation of the heart; could feel pulse in any part of the body. Occasionally there is severe pain in the back. The stomach lies entirely below the navel; the colon is greatly dislocated and both kidneys are easily felt.

CASE III.—Mrs. S., aged thirty-five years, housewife, married. From childhood had considerable gas formation, severe headaches, and vomiting. During the past three years has had numerous attacks, which were diagnosed as gallstone colic. First a tenderness is noticed in the region of the right kidney, then pain begins here, radiates to the lumbar portion of the spine, to the left kidney, and up toward the stomach, where it becomes very severe. Patient tries to vomit, has a convulsive attack, and faints away. Just before these attacks a large quantity of colorless urine is passed. The stomach and both kidneys are greatly dislocated.

Most of our enteroptotics have displacements of the uterus; a few suffer with mucous colitis, but this condition is probably secondary to the uterine trouble.

Stiller believes that there is a close association between tuberculosis and enteroptosis. I have noticed it in a number of cases. Enteroptosis might easily occur as a result of the wasting of tuberculosis. However, I believe that enteroptosis can be demonstrated in most women with tuberculous habitus before the lung disease has asserted itself.

From a study of this series of cases I think I am justified in stating that there is no etiological connection between enteroptosis and chlorosis. Meinert might with as good reason decide that chlorosis caused enteroptosis as the reverse. Most cases of enteroptosis are anæmic, but do not have the special variety of anæmia termed chlorosis. Chlorosis is often met with in persons without enteroptosis, and many enteroptotics do not have chlorosis.

Most authors mention the frequency of hyperacidity in enteroptosis. Stiller thinks there is a close connection between Reichman's disease and enteroptosis. According to my series of cases subacidity was more often present than hyperacidity. I believe that congenital cases of enteroptosis are most likely to show hyperacidity.

ETIOLOGY. The large number of women in our series who have never borne children (20 out of 56)—the large number who have never practised tight-lacing, who give no history of falls, heavy lifting, wasting diseases, or operations upon the abdomen—convinces me that there is in many a congenital predisposition to this disease. This class of cases usually shows Stiller's phenomenon—the floating tenth rib. There is a congenitally relaxed condition of the peritoneal attachments and a lack of muscular tone.

The acquired or secondary cases are more numerous, but it is difficult to determine in many to what extent a predisposition might have aided the so-called exciting cause. In many such there is a lack of tone in the tissues which makes it possible for trifling causes to produce this condition. Such etiological factors are: All conditions tending to diminish intra-abdominal pressure; frequent child-bearing, ascites requiring tapping, operation for abdominal tumors, etc. Severe infectious diseases, and chronic wasting diseases weaken the abdominal muscles and cause a disappearance of fat, resulting in a relaxation of peritoneal attachments. Straining at stool is a cause which is usually not recognized.

TREATMENT. The greater one's experience with enteroptosis the more conservative and guarded his statements as regards treatment and recovery. All floating kidneys and dislocated stomachs are not to be stitched into place; in fact, only a well-chosen few are benefited by such operation. I will venture the assertion that the majority of cases operated upon for floating kidney were never examined as to whether stomachs and colon were not likewise dislocated. In most cases of general enteroptosis nephrorrhaphy will be of no benefit. I am familiar with several striking examples which illustrate the truth of this statement.

In gynecological practice a large number of women with displacements and torn perinei have distressing nervous symptoms. The specialist, taking a narrow view of the case, performs anterior fixation, uses pessaries, repairs the perineum, and is disappointed in the results of his treatment. Many of these cases are enteroptotics, and the symptoms are as much dependent on dislocated stomach, kidneys, and intestines as upon retroversion and anteflexion. Operation is advisable in cases accompanied by hydronephrosis and Dietl's crises, in which we have pure mechanical disturbances resulting from a kinking or twisting of the kidney vessels which could occur only when this organ was dislocated. Stengel and Beyea report a case of apparently congenital enteroptosis, whose symptoms were chiefly gastric, in which nephrorrhaphy performed by J. William White did not relieve the symptoms, though the kidney remained in place. Later, the operation of taking a tuck in the gastrohepatic omentum and gastrophrenic ligament was performed and the stomach brought into what seemed almost normal position. Following this operation the stomach symptoms were relieved, the patient was able to eat freely without discomfort, appetite improved, and she gained nineteen pounds. Eight months after operation the greater curvature was one and a half inches below the navel.

In cases having severe gastric symptoms requiring morphine and not relieved by other means at our command, such an operation should be considered.

Abdominal bandages or belts with properly applied pads may relieve symptoms in some cases. They should be applied with the patient in the knee-chest position or lying on her back, with the hips elevated. Reclining in bed often relieves the dragging sensation. In some cases in which the stomach symptoms are prominent, occasional lavage and the use of dilute hydrochloric acid (if there is subacidity) are useful. Exercise and massage of the abdominal muscles are of great value, but can seldom be satisfactorily carried out. I have seen many cases improve remarkably under the use of tincture of nux vomica. The method in vogue in Dr. Dock's clinic is to begin with 10 or 15 drops before each meal, increasing 1 drop daily until as high as 70 or 80 drops are taken. This medication should be combined with overfeeding. The general tone of the system is greatly improved, the nervous symptoms especially being relieved; the patient puts on flesh and in every way, with the exception of the dislocations, is greatly benefited.

If the stomach is dilated or if there is retention of food as a result of kinking in the duodenum, gastric lavage should be used as indicated. There must be a great deal of individualizing in the treatment of this condition.

THE ESTIMATION OF THE URINARY SULPHATES AND OF THE FECAL FAT IN THE DIAGNOSIS OF PANCREATIC DISEASE.

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(From the William Pepper Laboratory of Clinical Medicine, Phœbe A. Hearst Foundation.)

A REDUCTION in the amount of ethereal sulphates in the urine has been thought to be a possible sign of pancreatic disease, for the following reasons: The production in the intestine of the substances which are finally largely excreted in the urine as so-called ethereal sulphates, is dependent upon the putrefaction of protein, and this process is due to bacterial activity. Bacteria are able to break down native albumen in only relatively small amounts, while they readily decompose comparatively large amounts of the products of proteolytic digestion. If, therefore, there were little or no proteolytic digestion going on in the intestine, as is the case in severe disease of the pancreas, the products of bacterial activity (the indol, skatol, etc.) would be largely decreased, and there would, consequently, be a reduction in the ethereal sulphates of the urine. The brief literature concerning the value of estimation of the ethereal sulphates will be reviewed after the report of two cases which are of some interest in this connection, since in both the diagnosis was ultimately made clear—by the post-mortem examination in one instance and by the subsequent clinical course in the other.

The first case occurred in a man, aged thirty-six years, who was under Dr. Stengel's care at the University Hospital. He gave a history of spasmodic attacks of colicky pain above and to the right of the umbilicus, radiating toward the left. The first attack occurred in May, 1900. The pain was subsequently felt a number of times, though the first attack was decidedly the most severe. There was an indefinite history of slight jaundice accompanying the attacks. Between the time of the first spasm of pain and his admission to the hospital in November there was a loss of about forty pounds in weight; but, excepting for the emaciation and the attacks of pain, the only symptoms had been indefinite but continuous discomfort in the epigastric region and severe constipation. Upon admission nothing could be discovered by physical examination with the exception of slight enlargement of the stomach, absence of HCl from the stomach contents, and slight stagnation of the contents.